

Operating Instructions

NE-2680/NE-1780

Commercial Microwave Ovens



Please read these instructions completely before operating this oven.

Panasonic®

TABLE OF CONTENTS

PRECAUTIONS TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY	3
IMPORTANT SAFETY INSTRUCTIONS	3
Installation and Grounding Instructions	4
Caution	4
Power Source Voltage Adjustment	5
How Does The Microwave Work?	5
Feature Diagram	6
How to Operate	
Before Operating	7
Heating	
A. Manual Single Stage Heating	8
B. Manual 2 or 3 Stage Heating	9
C. Programmed Heating	10
Programming	
A. Programming Memory Pads for Single Stage Heating	11
B. Programming Memory "B"	11
C. Programming Memory Pads for 2 or 3 Stage Heating	12
Other Features	
A. To Activate Program Lock	13
B. To Release Program Lock	13
C. To Read Program List	14
D. To Select Beep Tone Options	16
E. To Read the Cycle Counter	17
Self Diagnostics Failure Code Explanation	18
Care of Your Microwave Oven	19
Sanitary Counter Top Sealing Instructions	19
Technical Specifications	20

Owner's Record

Model No. _____

Serial No. _____

The serial number of this product may
be found on the side of the oven.

Dealer's Name _____

Dealer's Address _____

Date of Purchase _____

Toll Free Service Information

To locate a convenient service agent call

1-800-545-2672

PRECAUTIONS TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY

- (a) **Do not attempt to operate this oven with the door open** since open-door operation can result in harmful exposure to microwave energy. It is important not to defeat or tamper with the safety interlocks.
- (b) **Do not place any object between the oven front face and the door**, or allow soil or cleaner residue to accumulate on sealing surfaces.
- (c) **Do not operate the oven if it is damaged.** It is particularly important that the oven door close properly and that there is no damage to the:
 - (1) door (bent)
 - (2) hinges and latches (broken or loosened)
 - (3) door seals and sealing surfaces.
- (d) **The oven should not be adjusted or repaired** by anyone except properly qualified service personnel.

IMPORTANT SAFETY INSTRUCTIONS

When using electrical appliances, basic safety precautions should be followed, including the following:

WARNING — To reduce the risk of burns, electric shock, fire, injury to persons or exposure to excessive microwave energy:

1. Read all instructions before using this oven.
2. Read and follow the specific **"PRECAUTIONS TO AVOID POSSIBLE EXPOSURE TO EXCESSIVE MICROWAVE ENERGY,"** at the top of this page.
3. This oven must be grounded. Connect it only to properly grounded electrical outlet. See **"GROUNDING INSTRUCTIONS"** found on page 4.
4. Install or locate this oven only in accordance with instructions provided.
5. Some items such as whole eggs or sealed containers—for example, closed glass jars—may explode and should not be heated in this oven.
6. Use this appliance only for its intended use as described in this manual. Do not use corrosive chemicals or vapors in this appliance. This type of oven is specifically designed to heat, cook, or dry food.
It is not designed for industrial or laboratory use.
7. **Do not leave children alone** — Children should not be left alone or unattended in an area where appliance is in use. They should never be allowed to sit or stand on any part of the appliance.
8. Do not operate this oven if it has a damaged cord or plug, if it is not working properly, or if it has been damaged or dropped.
9. This oven should be serviced only by qualified service personnel. Contact the nearest authorized service agent for examination, repair or adjustment.
10. Do not cover or block any openings on this oven.
11. Do not store this oven outdoors. Do not use this oven near water — for example, near a kitchen sink, in a wet basement, or near a swimming pool.
12. Do not immerse cord or plug in water.
13. Keep cord away from heated surfaces.
14. Do not let the cord hang over edge of the table or counter.
15. When cleaning the surfaces of the door and the oven that come together, use only a mild, non-abrasive soaps or detergents applied with a sponge or soft cloth.
16. To reduce the risk of fire in the oven cavity:
 - (a) Do not overcook food. Carefully attend the oven if paper, plastic, or other combustible materials are placed inside the oven to facilitate cooking.
 - (b) Remove wire twist-ties from paper or plastic bags before placing the bag in the oven.
 - (c) If materials inside the oven should ignite, keep oven door closed, turn the oven off, and disconnect the power cord, or shut off the power at the fuse or circuit breaker panel.
 - (d) Do not use the cavity for storage purposes. Do not leave paper products, cooking utensils, or food in the cavity when not in use.

SAVE THESE INSTRUCTIONS

For proper use of your oven read remaining safety cautions and operating instructions.

Installation and Grounding Instructions

Placement of the Oven

Locate the oven on a smooth, flat and stable surface. There should be no gap between the table surface and the bottom of the oven. Do not place the oven in a hot or damp area, ie. near a stove. Free airflow around the oven is important. There is a possibility of a small amount of interference with weak broadcast signals if the microwave oven is too close to a radio or TV.

Grounding Instructions

This oven must be grounded electrically. In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current. This appliance is equipped with a cord having a grounding wire with a grounding plug. The plug must be plugged into an outlet that is properly installed and grounded. **WARNING** — Improper use of the grounding plug can result in a risk of electric shock.

Consult a qualified electrician or service person if the grounding instructions are not completely understood, or if doubt exists as to whether the appliance is properly connected.

Do not use an extension cord. If the power supply cord is too short, have a qualified electrician or serviceman install an outlet near the appliance.

Removal of Protective Film

A blue protective film is used to prevent scratching of the outer case during transportation. Peel the film from the exterior of the oven before installation or use.

Wiring Requirements

1. No other appliance should share the circuit with the microwave oven. If it does, the branch circuit fuse may overload and either cause the oven to heat slower than expected or blow the fuse.
2. The oven is built to operate on 2 different voltages (220 - 240 V or 208 V). Be sure that the voltage selector connector (on the back of the oven) is set for your power supply. See page 5 for Adjustment Instructions. Using a higher voltage is dangerous and may result in overheating of the electrical components thus shortening their life expectancy or possibly causing a fire or other accident. Using a lower voltage will lower the power output of the oven, resulting in slower heating of the food. Panasonic is NOT responsible for damage resulting from the use of the oven with other than specified voltage.

A. For model NE-2680:

This oven must be on a separate 60 Hz
GROUNDING CIRCUIT - minimum 30 amps.
NEMA# 6-30P NEMA# 6-30R
Grounded Outlet



B. For model NE-1780:

This oven must be on a separate 60 Hz
GROUNDING CIRCUIT - minimum 20 amps.
NEMA# 6-20P NEMA# 6-20R
Grounded Outlet



Caution

1. Do not attempt to tamper with or make any adjustments or repairs to the door, control panel housing, safety interlock switches or any other part of the oven. Repairs should only be done by a qualified service person.
2. Do NOT operate the oven when it is empty. The microwave energy will reflect continuously throughout the oven if no food or water is present to absorb energy, resulting in damage to components.
3. If a fire occurs in the oven, press the Stop/Clear Time Pad and LEAVE THE DOOR CLOSED. Disconnect the power cord, or shut off the power at the fuse or circuit breaker panel.
4. Do NOT attempt to dry clothes, newspapers or other materials in the oven, as they may catch on fire.
5. Do NOT use recycled paper products, as they may contain impurities which may cause sparks and/or fires.
6. Do NOT use newspapers or paper bags for cooking.
7. Do NOT hit or strike the control panel. Damage to controls may occur.
8. POT HOLDERS may be needed when removing food from the oven. Heat is transferred from the hot food to the container.
9. Do NOT store flammable materials next to, on top of, or in the oven. It could be a fire hazard.

Power Source Voltage Adjustment

Your microwave oven is factory set for 208 V operation. For 220 V - 240 V operation, the following adjustment **MUST** be made.

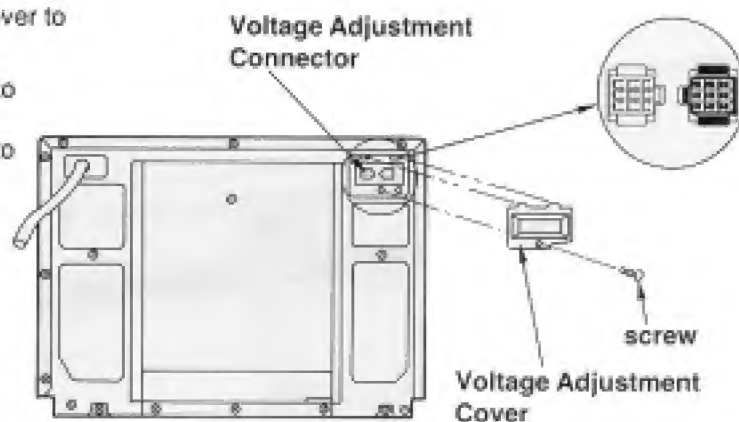
- (Step 1) Unplug the oven.
- (Step 2) Unscrew the voltage adjustment cover which is located on the back of the oven. Do not remove any other parts from the oven.
- (Step 3) Remove the connector from the white socket and rotate connector 180 degrees and plug into black socket. (See sketch)
- (Step 4) Reattach the voltage adjustment cover to the cabinet.

For 220 V - 240 V — Plug the connector into black socket.

For 208 V — Plug the connector into white socket.

CAUTION

Make sure that the power cord is unplugged before removing the voltage adjustment cover.



How Does The Microwave Work?

Microwaves are a form of high frequency radio waves similar to those used by a radio including AM, FM and CB. They are, however, much shorter than radio waves; approximately five inches long. Electricity is converted into microwave energy by the magnetron tube. From the magnetron tube, microwave energy is transmitted and absorbed by the food.

Reflection

Microwaves are reflected by metal just as a ball is bounced off a wall. A combination of stationary (interior walls) and rotating antenna, located underneath the bottom shelf and above the ceiling cover, assure that the microwaves are well distributed within the oven cavity to produce even heating or cooking of foods.

Transmission

Microwave pass through some materials such as paper, glass and plastic much like sunlight shining through a window. Because these substances do not absorb or reflect the microwave energy, they are ideal materials for microwave oven heating containers.

Absorption

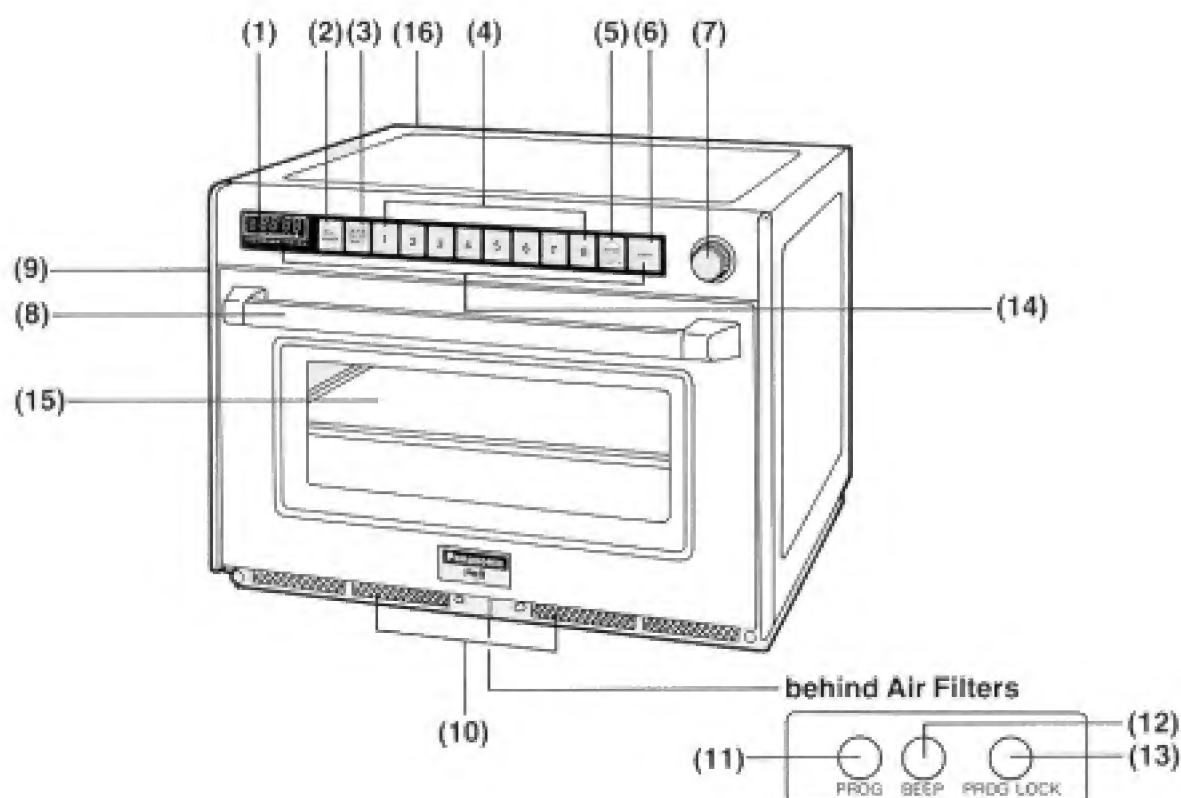
During heating, microwaves will be absorbed by food, penetrating to a depth of about $\frac{3}{4}$ to $1\frac{1}{2}$ inches.

Microwave energy excites the molecules in the food (especially water, fat and sugar molecules), and causes them to vibrate at a rate of 2,450,000,000 times per second. This vibration causes friction, and heat is produced just as you will feel heat produced if you vigorously rub your hands together. The internal heating of larger food volumes are done by conduction. The heat which is produced by friction is conducted to the center of the food. Foods also continue to heat by conduction during standing time. Because microwaves dissipate, much like sunlight as it reaches the Earth's surface, they are not stored in food.

Radio Interference

1. Operation of the microwave oven may cause interference to your radio, TV or similar equipment.
2. When there is interference, it may be reduced or eliminated by taking the following measures:
 - a. Clean the door and sealing surfaces of the oven. (See Care of Your Microwave Oven found on page 19.)
 - b. Place the radio, TV, etc. away from the microwave oven as far as possible.
 - c. Use a properly installed antenna, to obtain stronger signal reception.

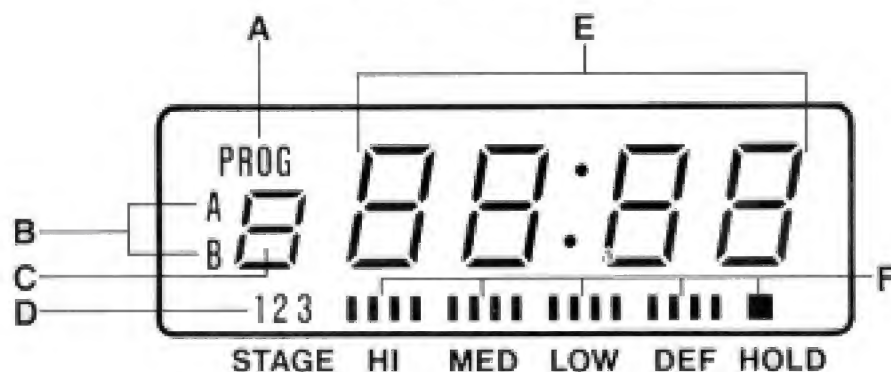
Feature Diagram



- (1) Digital Display Window (see below)
- (2) Power Level Selector Pad
- (3) Memory Shift Pad
- (4) Memory Pads
- (5) Stop/Clear Time Pad
- (6) Start Pad
- (7) Timer Dial
- (8) Door Handle
- (9) Oven Lamp Cover

- (10) Air Filters
- (11) Program Entry Button
(behind Air Filters)
- (12) Beep Control Button (behind Air Filters)
- (13) Program Lock Button (behind Air Filters)
- (14) Control Panel
- (15) Middle Shelf
- (16) Voltage Adjustment Cover
(rear side of the oven)

Digital Display Window Indicator Locations



- A — Program Display
- B — Memory Code Display
- C — Memory Pad Number Display
- D — Stage Heating Indicator
- E — Heating Time Display
(min. sec.)

- F — Power Level Indicator
- HI (HIGH)
- MED(MEDIUM)
- LOW
- DEF(DEFROST)
- HOLD

How to Operate

Before Operating

Make sure the oven is connected to a properly grounded electrical outlet. (See page 4)

When the door is closed, the display is still blank. When the door is opened, the display shows "0".

For detailed operation, see the page for each feature.

This oven is preset at the factory for the following:

1. Memory Pads are preset to High Power at the indicated heating times for single stage heating.

1 — 10 sec. 2 — 20 sec. 3 — 30 sec.
4 — 45 sec. 5 — 1 min. 6 — 1 min. 15sec.
7 — 1 min. 30 sec. 8 — 2 min.

2. Program Unlock.

3. The Beep Tone is set for the loudest level (#3) and for 3 Beeps.

To set the Power Level:

This microwave oven has five power levels. Select the power level before programming the cooking time.

Press



1 time . . . HIGH
2 times . . MEDIUM
3 times . . LOW
4 times . . DEFROST
5 times . . HOLD

Time ranges you can set are below:

Display Time	Time Range
0 - 1 minute	2 second increments
1 - 3 minutes	5 second increments
3 - 5 minutes	15 second increments
5 - 10 minutes	30 second increments
10 - 30 minutes	1 minute increments
30 - 60 minutes	5 minute increments

Power	Time Range
HIGH	2 sec. - 15 min.
MEDIUM	2 sec. - 15 min.
DEFROST	2 min. - 60 min.
LOW	2 sec. - 60 min.
HOLD	2 sec. - 60 min.

Display:

The display will go blank (when the door is closed):

- after more than 1 minute interruption of operation.
- after more than 1 minute following completion of heating and removing food.

The display will flash "0":

- continuously if food is not removed.

Oven Light:

Oven light will be turned on when;

- you open the door.
- heating starts.

Oven light will be turned off when;

- you close the door.
- heating finishes.

How to Operate









Heating

Open the door and place food in the oven cavity.
Close the door. "0" must be showing in the display window.

A. Manual Single Stage Heating:

This feature gives the user maximum flexibility to set the oven to desired heating times and power levels. Ideal for menus that require variations in heating requirements.

Example: To heat for 1 minute 30 seconds at MEDIUM Power




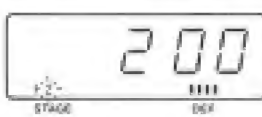





1.		•Press the Power Level Selector Pad twice.	
2.		•Turn the Timer Dial to 1 30.	
3.		•Press the Start Pad. Heating will start. The time on digital display will count down.	
4. Beep tone will sound.		•All heating will stop.	
5. Open the door.		•Remove the foods. The digital display will return to the originally selected time and power.	

How to Operate

B. Manual 2 or 3 stage Heating:

This feature allows you to set to begin heating at one power level then shift automatically to a different power level after designated amount of heating time.

Example: To heat for 2 minutes at DEFROST Power for 2nd stage heating

1.	•Follow steps 1 to 2 on previous page for manual single stage heating.	
2.	 •Press the Power Level Selector Pad 4 times.	
3.	 •Turn the Timer Dial to 2 00.	
4.	 •Press the Start Pad. The total time for both stages will be displayed. Heating will start. The time on digital display will count down. •When the oven shifts to the next stage, a single beep tone will sound.	 
5. Beep tone will sound.	•All heating will stop.	
6. Open the door.	•Remove the foods. The digital display will return to the originally selected time and power.	

NOTE:

For a 3 stage heating cycle, select a power level once again after step 3 on this page and dial in a heating time. See Special Note below.

SPECIAL NOTE: For both single and 2 or 3 stage heating.

- While heating, one tap on the Stop/Clear Time Pad stops the oven. You can restart it by pressing the Start Pad or a second tap on the Stop/Clear Time Pad will cancel the selected program.
- One tap on the Stop/Clear Time Pad before the heating cycle is started will cancel the selected program.






REPEAT FEATURE

- You can repeat exactly the same manually selected heating program by pressing the Start Pad, if you use the oven again within 1 minute (within 30 minutes when the door has been left open).
- After 1 minute of non-use with the door closed (30 minutes with the door open), the repeat feature will be cancelled.


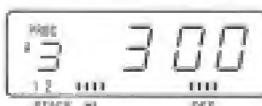




How to Operate

C. Programmed Heating:

Example: 1 Stage Heating: Memory Pad 5 (1 minutes on HIGH Power)

1.		<ul style="list-style-type: none"> Press the Memory Pad 5. In Program Lock Mode, oven will start without pressing Start Pad. 	
2.		<ul style="list-style-type: none"> Press the Start Pad if not in Program Lock mode. Heating will start. Heating time will count down. 	
3. Beep tone will sound.		<ul style="list-style-type: none"> The time display will flash "0" until the door is opened. 	

Example: 2 Stage Heating: Memory Pad 3 (1 minute on HIGH Power and 2 minutes on DEFROST Power)












1.		<ul style="list-style-type: none"> Press the Memory Pad 3. In Program Lock Mode, oven will start without pressing Start Pad. 	
2.		<ul style="list-style-type: none"> Press the Start Pad if not in Program Lock mode. Heating will start. Heating time will count down. When the oven shifts to the next stage, a single beep tone will sound. 	 
3. Beep tone will sound.		<ul style="list-style-type: none"> The time display will flash "0" until the door is opened. 	

How to Operate

Programming





A. Programming Memory Pads for Single Stage Heating:

Example: To program 3 minutes at Defrost Power for Memory Pad Number 5.

1.		<ul style="list-style-type: none"> Remove the left air filter. (See page 19) Press the Program Entry Button. NOTE: If no "PROG" indication appears in the display, "Program Lock" should be cancelled. (See page 13.) 	
2.		<ul style="list-style-type: none"> Press the Memory Pad 5. The pad number and the previously selected time and power level will appear in the display. 	
3.		<ul style="list-style-type: none"> Press the Power Level Selector Pad 4 times. 	
4.		<ul style="list-style-type: none"> Turn Timer Dial to 3 00. 	
5.		<ul style="list-style-type: none"> Press the Program Entry Button again. You have completed programming the selected Memory Pad for single stage heating. Three seconds after programming has been completed, the display will go blank. Re-install the left air filter. 	 

B. To Program Memory Code "B":

Example: Repeat with Memory Pad 5-B

1.		<ul style="list-style-type: none"> Remove the left air filter. (See page 19.) Press the Program Entry Button. NOTE: If no "PROG" indication appears in the display, "Program Lock" should be cancelled. (See page 13.) 	
2.		<ul style="list-style-type: none"> Press the Memory Shift Pad so that "B" appears in the display. 	
3.		<ul style="list-style-type: none"> Follow steps 2-5 above. 	









NOTE:

Once the Memory "B" category has been selected it can not be changed back to the Memory "A" category. If you want to return to Memory "A", press the Stop/Clear Time Pad.

How to Operate

C. Programming Memory Pads for 2 or 3 Stage Heating:

Example: To program 3 minutes on DEFROST and 2 minutes on HIGH in Memory Pad 5

1.	<ul style="list-style-type: none"> Follow steps 1 to 4 for single stage heating. (See page 11-A.) 	
2.	 <ul style="list-style-type: none"> Press the Power Level Selector Pad once for the 2nd stage. 	
3.	 <ul style="list-style-type: none"> Turn Timer Dial to 2:00. 	
4.	 <ul style="list-style-type: none"> Press the Program Entry Button again. The total time for both stages will be displayed. You have completed programming the selected Memory Pad for 2 stage heating. 3 seconds after programming has been completed, the display will go blank. Re-install the left air filter. 	 


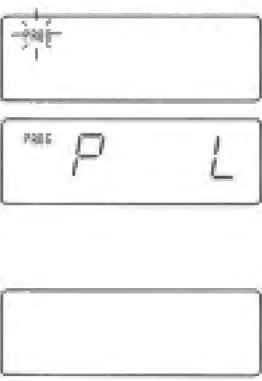
NOTE: For a 3 stage heating cycle, select a power level once again after step 3 on this page and dial in a heating time.

How to Operate

Other Features

A. To Activate Program Lock:

This procedure "locks" the control panel Memory Pads into their programmed heating times and power levels. This feature allows one touch operation of the Memory Pads. The door may be opened or closed.



<p>1.</p>  <p>PROG LOCK</p>	<ul style="list-style-type: none">• Remove the right air filter. (See page 19.)• Press and hold in the Program Lock Button for 5 seconds until the display shows "PROG", "P" and "L". NOTE: Do not press the Program Lock Button continuously for more than 30 seconds or a false failure code (F44) may result.• 3 seconds later, the display window will go blank.• Re-install the right air filter.	
--	--	---

NOTE: In "Program Lock"

- The interrupt feature is deactivated — opening the door cancels the remaining time on the program.
- The oven cannot be programmed until the program lock feature is deactivated.

B. To Release Program Lock:

This procedure deactivates "Program Lock" and activates all other Features. Oven reverts to a 2 touch operating mode (Memory Pad plus Start Pad). The door may be opened or closed.

<p>1.</p>  <p>PROG LOCK</p>	<ul style="list-style-type: none">• Remove the right air filter. (See page 19.)• Press and hold in the Program Lock Button for 5 seconds until the display shows "PROG" and "P". NOTE: Do not press the Program Lock Button continuously for more than 30 seconds, or a false failure code (F44) may result.• 3 seconds later the display window will go blank.• Re-install the right air filter.	
--	---	---

NOTE: In "Program Unlock"







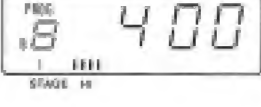
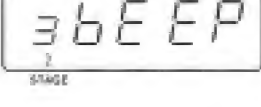


- Repeat and interrupt features are operational.
- Memory Pads can be programmed.
- Tone loudness control and length of tone control are operational.

How to Operate

C. To Read Program List:

This feature allows you to review all currently programmed Pad Numbers, heating times and Power Levels for each stage.

For All Memory Pads:

1.	<ul style="list-style-type: none"> Open the door and leave it open. 	
2. <div data-bbox="321 527 415 785">  +  </div>	<ul style="list-style-type: none"> While pressing the Stop/Clear Time Pad, press and hold in the Start Pad for 2 seconds. Display window will show the program from Memory Pad 1 to Memory Pad 8. <ul style="list-style-type: none"> Program Memory Pad 1, the Memory Code "A", the first stage heating time and power level. 2 seconds later The 2nd stage heating time and power level is displayed. Program Memory Pad 1, the Memory Code "B" is displayed. Program Memory Pad 8, the Memory Code "B" is displayed. The Beep Tone Setting is displayed. The Program Lock "P L" (or Program Unlock "P") is displayed. All settings have been displayed. Display returns to "0". 	      

NOTE:








- If you want to stop the display, press the Stop/Clear Time Pad once. When you want to continue the display, press the Start Pad.
- If you want to cancel the display, press the Stop/Clear Time Pad twice.

How to Operate

C. To Read Program List (cont.):

How to read the program for a particular Memory Pad:

Example: The Memory Pad 5 (1 minute on HIGH Power)

1.		• Follow steps 1 to 2 on page 14.	
2.		• Press the Stop/Clear Time Pad.	
3.		• Press the Memory Pad 5.	
4.	 OR 	• When pressing the Start Pad, the display will continue to sequence through the pad numbers. • When pressing the Stop/Clear Time Pad, the display will be cancelled.	 




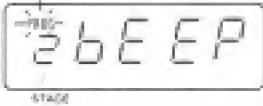



How to Operate

D. To Select Beep Tone Options:

The Beep Tone can be set for Loudness — (4 Levels) and Length of Tone at the end of the heating cycle — (2 Options). You can select the combination of Loudness and Length that best suits your needs. The door may be opened or closed.




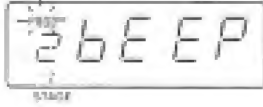



To Select Loudness Level:

Example: To set for the loudness level 2

1.	 PROG	<ul style="list-style-type: none"> Remove the air filters. (See page 19.) Press the Program Entry Button one time. 	
2.	 BEEP	<ul style="list-style-type: none"> Press the Beep Control Button twice. You can change the Loudness by pressing the Beep Control Button. Example: 3 beep — Loudest 0 beep — Silent 	
3.	 PROG	<ul style="list-style-type: none"> Press the Program Entry Button again. You have completed setting the loudness level. Three seconds later, the display window will go blank when the door is closed. Re-install the air filters. 	 

To Select Length of Tone:




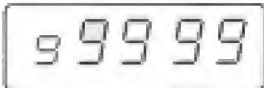

Example: To set for 60 seconds of Long Beeps

1.		<ul style="list-style-type: none"> Follow steps 1 to 2 above. 	
2.	 PROG  BEEP	<ul style="list-style-type: none"> Press the Program Entry Button and quickly select the Length of Tone by pressing the Beep Control Button. Example: First Stage Indicator "1" illuminated — 3 BEEPS 2nd Stage Indicator "2" illuminated — 60 seconds of BEEPS 	 
3.	 PROG	<ul style="list-style-type: none"> Press the Program Entry Button again. You have completed setting the length of tone. Three seconds later, the display window will go blank. Re-install the air filters. 	

How to Operate

E. To Read the Cycle Counter:

The oven can display the total number of times the oven has been operated cumulatively. This is useful for analyzing usage of the oven and traffic flow at the location.

1.	<ul style="list-style-type: none">• Remove the air filters. (See page 19.)	
2.	<ul style="list-style-type: none">• Open the door.	
3.	<ul style="list-style-type: none">• Close the door. <p>NOTE: Carry out the next step within 60 seconds of closing the door, or the display will go blank.</p>	
4.	<div> BEEP +  PROG</div> <ul style="list-style-type: none">• While pressing the Beep Control Button, press the Program Entry Switch. The display shows the total cumulative number of times the oven has been used.• 3 seconds later, the display window will go blank. When the door is opened, "0" will appear in the display window.• Re-install the air filters.	<div></div> <div></div>

Self Diagnostics Failure Code Explanation

This oven monitors its operation and displays a Failure Code in the display window when a problem occurs.

What to do when a failure code appears:

CODE	CAUSE	WHAT TO DO						
F01	<ul style="list-style-type: none">*Overcook food.*Temperature of exhaust air too high.	<ul style="list-style-type: none">*Unplug oven to stop beep.*Wait for oven to cool down to reset operation.*If food ignites, do not open oven door.*If normal operation does not resume, call the service agent with information of failure code.						
F02	<ul style="list-style-type: none">*Heating oven without food.*Heating oven with very small food.	<ul style="list-style-type: none">*Open the oven door to cool oven down.*Oven resets for operation when cool.*If normal operation does not resume, call the service agent with information of failure code.						
F03	<ul style="list-style-type: none">*Incoming line voltage too high. <div>This oven is designed to operate with 208 or 220-240 Volts AC.</div>	<ul style="list-style-type: none">*Check line voltage and that voltage adjustment is matched. (Refer to page 5 for power source voltage adjustment.) <table><tr><td>Line Volt.</td><td>Connector Color</td></tr><tr><td>208 V</td><td>White</td></tr><tr><td>220-240 V</td><td>Black</td></tr></table>	Line Volt.	Connector Color	208 V	White	220-240 V	Black
Line Volt.	Connector Color							
208 V	White							
220-240 V	Black							
F04	<ul style="list-style-type: none">*Incoming line voltage too low.	<ul style="list-style-type: none">*If the line voltage is other than 208 or 220-240 V, consult electrician to check outlet.						
F11-24	<ul style="list-style-type: none">*Defective latch/magnetron circuit.*Is anyone holding door handle during heating?	<ul style="list-style-type: none">*Unplug oven and clean the door and oven surface.*Wait more than 10 seconds and reconnect.*If normal operation does not resume, call the service agent with information of failure code.						
F31-34	<ul style="list-style-type: none">*Defective sensor circuit.	<ul style="list-style-type: none">*Unplug the oven and wait more than 10 seconds before reconnecting.*If normal operation does not resume, call the service agent with the information of failure code.						
F44	<ul style="list-style-type: none">*When a pad was pressed for more than 30 seconds.*Defective pad or control circuit.							
F51-54	<ul style="list-style-type: none">*Defective relay circuit.							

NOTE: Above codes shown in display do not indicate all the possible failures on the unit.

Care of Your Microwave Oven

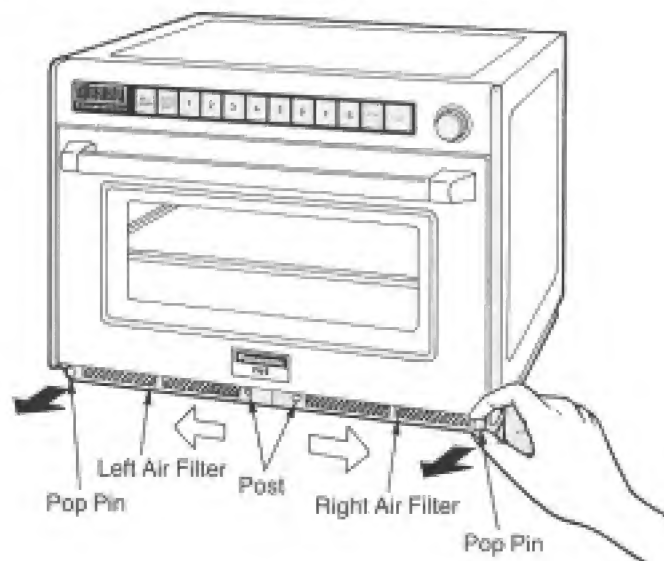
1. Disconnect the appliance from the electricity supply before cleaning.
2. Keep the inside of the oven clean. If pieces of food or spilled liquids stick to the oven walls, or between the door seal and the door surface, they will absorb microwaves and may cause arcing or sparks. Wipe up all spills with a damp cloth. Kitchen detergent may be used if the oven gets very dirty. Do not use harsh detergents or abrasives.
3. The outside surface of this Microwave Oven should be cleaned with soap and water, then dried with a soft cloth. Make sure that water does not get into the back ventilation opening since this can damage the unit.
4. The window of the door should be washed with very mild soap and water. Be sure to use a soft cloth. Never use window cleaner. The door front can be scratched by harsh soap or cleaners.

Cleaning the Air Filters

Clean the Air Filters occasionally according to the following instructions. Problems may occur with the oven if the filters become clogged with dirt or dust.*

1. Remove the right Air Filter from the front bottom skirt by pulling the Right Pop Pin straight out. Then slide the filter to the right and lift it off the post at the center. Remove the left Air Filter the same as the right one.
2. Wash the filters with soap and water.
3. To replace, align the filter with the center post, and holding the front of the Pop Pin forward, insert the back of the pin into its hole. Press the front of the pin and it will pop into place. Be sure to replace the air filters before using this oven.

*If the Air Filter becomes clogged with dust or grease this will cause an overheating problem in the oven.



CAUTION

Remove the plug from the electrical socket before replacement of the Cavity Light Bulb.

Replacement of the Cavity Light Bulb

If the Cavity Light burns out, you can replace it yourself by following these simple directions.

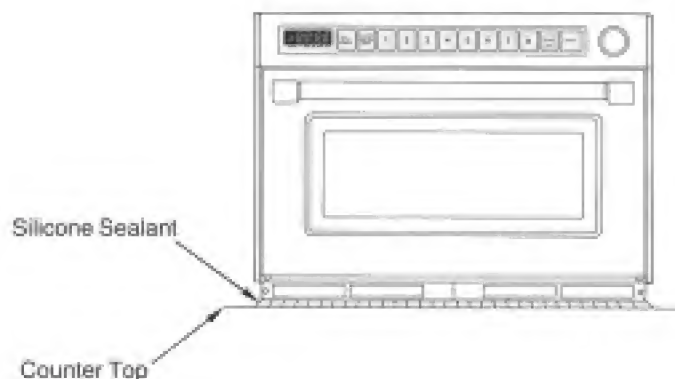
1. Unscrew the Cavity Light Cover which is located on the left side of the cabinet.
 2. Replace the old bulb with a new bulb.
 3. Close the Cavity Light Cover.
- use 230-250 V / 20 W

Sanitary Counter Top Sealing Instructions

When the microwave oven unit is placed on a counter top, its base must be sealed in accordance with N.S.F. Standards as per the following instructions.

1. Microwave oven should be located on a level counter top surface. Complete the electrical connections.
2. Thoroughly clean the microwave oven bottom perimeter and the counter top area around the microwave oven.
3. Lay a generous bead of silicone seal around the entire area of the microwave oven.
4. Smooth the silicone seal into the crevice with a finger or tool to provide a cove seal.

NOTE: Remove the Air Filters from the front of the oven before applying silicon.
DO NOT FORGET to re-install the Air Filters after applying silicon.

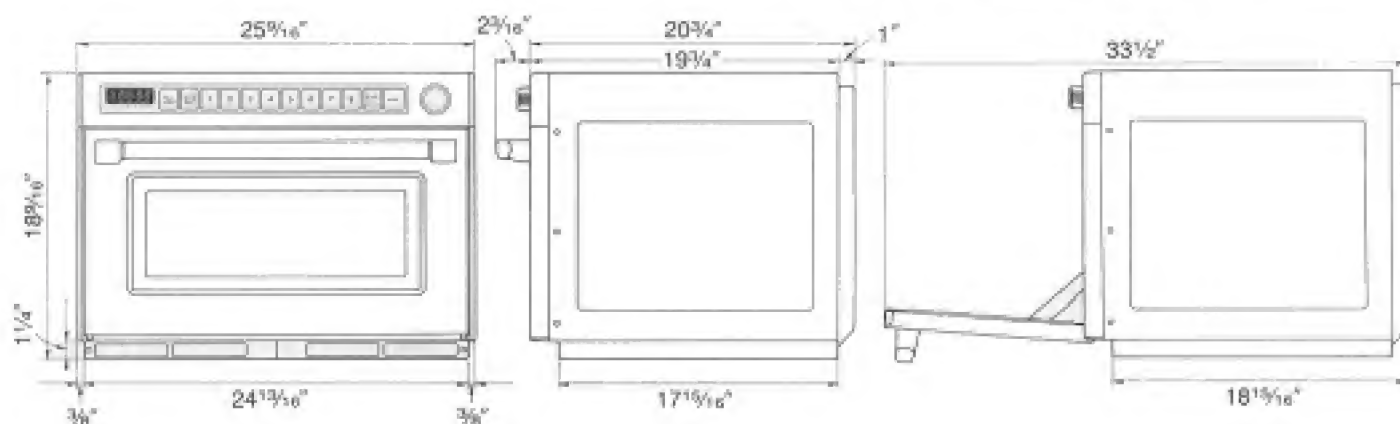


Technical Specifications

	NE-2680	NE-1780
Power Source	208/230 V, 60 Hz, single phase	
Required Power	24.0 A (208 V) 21.7 A (230 V)	17.0 A (208 V) 15.4 A (230 V)
Receptacle Required	30 AMP NEMA #6-30R	20 AMP NEMA #6-20R
Output*	HIGH 2600 W MEDIUM 1300 W LOW 340 W DEFROST 170 W HOLD 0 W	HIGH 1700 W MEDIUM 850 W LOW 340 W DEFROST 170 W HOLD 0 W
Oscillation Frequency	2450 MHz	
Outer Dimensions (W × D × H)	25 ⁹ / ₁₆ " × 20 ³ / ₄ " × 18 ⁹ / ₁₆ " (650 mm × 526 mm × 471 mm)	
Cavity Dimensions (W × D × H)	21 ¹ / ₁₆ " × 13" × 9 ⁷ / ₈ " (535 mm × 330 mm × 250 mm)	
Net Weight	136.4 Lbs. (62 kgs)	116.6 Lbs. (53 kgs)
Timer	Maximum programmable time for single stage heating HI and MED power = 15 min. LOW, DEF and HOLD power = 60 min.	
Memory Capability	16 programs	

*IEC 705-88 Test Procedure

Specifications subject to change without notice.



Panasonic®

Matsushita Electric Corporation of America
Special Products Division
One Panasonic Way 4A-4
Secaucus, NJ 07094
Or Call (201) 348-5377

A00033040AP
F0491-0
Printed in Japan